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Bates

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[54] **NON-LINEAR SCROLL BAR**

[75] Inventor: **Cary L. Bates**, Rochester, Minn.

[73] Assignee: **International Business Machines Corporation**, Armonk, N.Y.

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[52] **U.S. Cl.** **395/157**; 345/123; 345/145; 395/161

[58] **Field of Search** 395/155, 157, 161, 118; 340/721, 723, 724, 726, 706; 345/121, 123, 145, 157, 159

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Primary Examiner—Heather R. Herndon

Attorney, Agent, or Firm—Curtis G. Rose; Steven W. Roth

[57] **ABSTRACT**

A non-linear scroll bar is associated with a window or viewport on a computer display as part of a computer system, and contains a slider to indicate relative positioning in the window of a document, such as a data file, image file, audio file, text file, or spreadsheet. The current position of a user in a document, as referenced by a cursor or other marking device, is monitored by the computer system. After a first predetermined sampling period has elapsed, a first region containing upper and lower boundaries of a portion of the document that envelop the current position in the document is created in a portion of memory called "scroll data". The initial size of the region is determined by a predetermined region growth rate. When a user moves the slider of a scroll bar, the computer system checks scroll data to see if the new current position in the document is within the first region. If so, the computer system snaps back the slider to the midpoint of the first region and displays the corresponding portion of the document. The longer the current position is in the first region, the larger the first region becomes, and the easier the midpoint of this first region is for the user to find through course positioning of the scroll bar slider.

20 Claims, 8 Drawing Sheets